WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
MONTANA

UNITED STATES DEPARTMENT of AGRICULTURE···SOIL CONSERVATION SERVICE,
and
MONTANA AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies named above in cooperation with Federal, State, and private organizations listed on the inside back cover of this report.

AS OF
FEB. 1, 1966

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

To Recipients of Water Supply Outlook Reports:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season as they affect runoff will add to be an effective average. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1400 snow courses in Western United States and in the Columbia Basin in British Columbia. In the near future, it is anticipated that automatic snow water equivalent sensing devices along with radio telemetry will provide a continuous record of snow water equivalent at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

Listed below are water supply outlook reports based on Federal-State-Private Cooperative snow surveys. Those published by the Soil Conservation Service may be obtained from Soil Conservation Service, Room 507, Federal Building, 701 N. W. Glisan, Portland, Oregon 97209.

PUBLISHED BY SOIL CONSERVATION SERVICE

REPORTS	ISSUED	LOCATION	COOPERATING WITH
RIVER BASINS			
WESTERN UNITED STATES	MONTHLY (FEB.-MAY)	PORTLAND, OREGON	ALL COOPERATORS
BASIC DATA SUMMARY	OCTOBER 1	PORTLAND, OREGON	ALL COOPERATORS
STATES			
ALASKA	MONTHLY (MAR.-MAY)	PALMER, ALASKA	ALASKA S.C.D.
ARIZONA	SEMI-MONTHLY (JAN.15 - APR.1)	PHOENIX, ARIZONA	SALT R. VALLEY WATER USERS ASSOC. ARIZ. AGR. EXP. STATION
COLORADO AND NEW MEXICO	MONTHLY (FEB.-MAY)	FORT COLLINS, COLORADO	COLO. STATE UNIVERSITY COLO. STATE ENGINEER N. MEX. STATE ENGINEER
IDAHO	MONTHLY (JAN.-JUNE)	BOISE, IDAHO	IDAHO STATE RECLAMATION ENGINEER
MONTANA	MONTHLY (JAN.-JUNE)	BOZEMAN, MONTANA	MONT. AGR. EXP. STATION
NEVADA	MONTHLY (JAN.-MAY)	RENO, NEVADA	NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES - DIVISION OF WATER RESOURCES
OREGON	MONTHLY (JAN.-JUNE)	PORTLAND, OREGON	OREG. STATE UNIVERSITY OREGON STATE ENGINEER
UTAH	MONTHLY (JAN.-JUNE)	SALT LAKE CITY, UTAH	UTAH STATE ENGINEER
WASHINGTON	MONTHLY (FEB.-JUNE)	SPOKANE, WASHINGTON	WN. STATE DEPT. OF CONSERVATION
WYOMING	MONTHLY (FEB.-JUNE)	CASPER, WYOMING	WYOMING STATE ENGINEER

PUBLISHED BY OTHER AGENCIES

REPORTS	ISSUED	AGENCY
BRITISH COLUMBIA	MONTHLY (FEB.-JUNE)	WATER RESOURCES SERVICE, DEPT. OF LANDS, FOREST AND WATER RESOURCES, PARLIAMENT BLDG., VICTORIA, B.C., CANADA
CALIFORNIA	MONTHLY (FEB.-MAY)	CALIF. DEPT. OF WATER RESOURCES, P.O. BOX 388, SACRAMENTO, CALIF.

USDA-SCS-PORTLAND, OREG 1965

WATER SUPPLY OUTLOOK

FEDERAL-STATE-PRIVATE COOPERATIVE SNOW SURVEYS

for

MONTANA

Report Prepared

By

Phillip E.Farnes
Snow Survey Supervisor

And

Stanley E. Cook
Assistant Snow Survey Supervisor

Snow Survey and Water Supply Forecasting Branch
Soil Conservation Service
Box 855
Bozeman, Montana

Issued By

A. B. Linford
State Conservationist
Soil Conservation Service
Bozeman, Montana

J. A. Aslesson, Director
Montana Agricultural
Experiment Station
Bozeman, Montana

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MONTANA
WATER SUPPLY OUTLOOK
as of
February 1, 1966

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* * * * * * * * * * * * * * * * * * * * * * * *
* Late season water supply is expected to be  *
* critical on streams not having reservoir    *
* storage in the westcentral and southwest    *
* portions of the state.  Snow accumulation   *
* varies across the state from near average   *
* in the northwest to 65-70 percent average   *
* in the southwest.  Some smaller areas are   *
* nearer 50 percent average.                  *
*                                             *
* Streamflow is expected to be near average   *
* on the Kootenai, decreasing precentagewise  *
* to the south where streamflow may obtain    *
* the low levels reached in 1961.             *
* * * * * * * * * * * * * * * * * * * * * * * *
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Snow survey measurements near February 1 indicate the snow pack is about 15 percent above average on the Kootenai River headwaters in British Columbia. The Flathead River drainage has a snow pack about 90 percent average while the Clark Fork has about 80 percent average. Only two courses are measured in the Bitterroot and they indicate about 60 percent of average accumulation to date.

East of the divide the snow pack is presently 75 to 80 percent average on the Jefferson, Madison and Yellowstone River drainages. The Gallatin drainage is near 65 percent average while snow courses west of Helena near the Continental Divide register about 50 percent average for this date.

Streamflow for the April through September period is expected to be near average on the Kootenai River, a little below average on the Flathead River and 70 to 80 percent average in the Clark Fork drainage.

Flows in the Jefferson, Madison and Gallatin Rivers and on streams tributary to the Missouri above Great Falls are anticipated to be near or below the low volumes recorded in 1961. Even if precipitation is above average for the remainder of the snow accumulation period, late season water supplies will be below average in these areas. No shortages are expected on streams with reservoir storage.

Storage in irrigation reservoirs is generally above average and with proper regulation, all reservoirs are expected to fill.

Water contained in the soil under the snow pack is generally above average.

Snow pillow data for Lick Creek for 1964 and 1965 seasons are included in this report along with the 1966 season to date for the four snow pillows presently in operation.

MONTANA
SNOW SURVEY BULLETIN
as of
February 1, 1966

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* * * * * * * * * * * * * * * * * * * * * * * *
*                                             *
* Late season water supply is expected to be  *
* critical on streams and having meadows      *
* storage in the westernmost and southwest    *
* portions of the state. Snow accumulation    *
* varies across the state from near average   *
* in the northwest to 65-70 percent average   *
* in the southwest. Some smaller areas are    *
* nearer 50 percent average.                  *
*                                             *
* Streamflow is expected to be near average   *
* on the Yellowstone, Teanaging precipitation *
* in the south where streamflow may obtain    *
* the low levels reached in 1961.             *
* * * * * * * * * * * * * * * * * * * * * * * *
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Snow survey measurements near February 1 indicate the snow pack is about 15 percent above average on the Kootenai River basin in northwest Montana. The Flathead River drainage has a snow pack about 90 percent average while the Clark Fork has about 80 percent average. Only two courses are measured in the Bitterroot and they indicate about 60 percent of average accumulation to date.

Most of the divide the snow pack is presently 75 to 80 percent average on the Jefferson, Madison and Yellowstone River drainages. The Gallatin drainage is near 65 percent average while snow courses west of Helena near the Continental Divide register about 50 percent average for this date.

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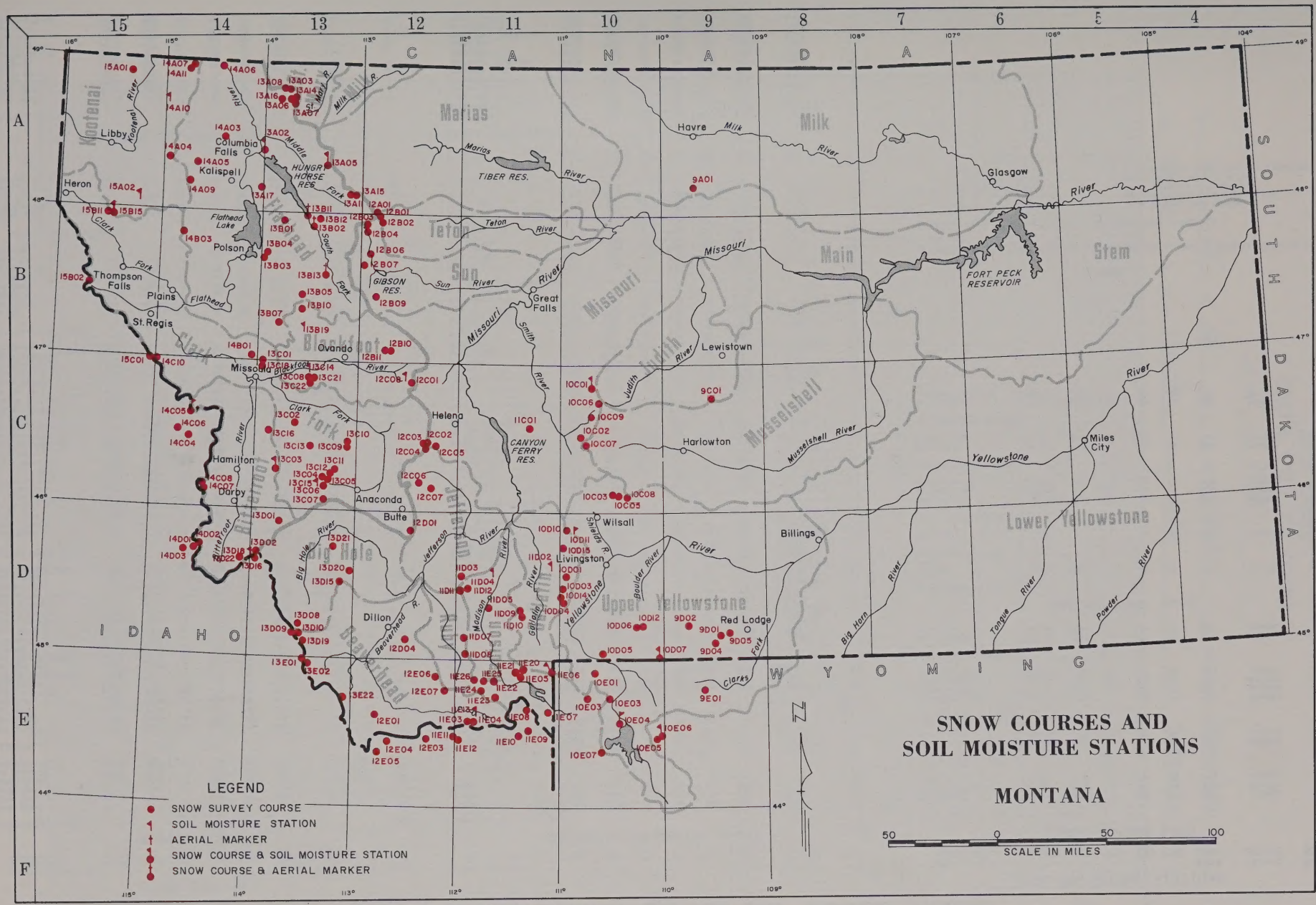
Storage in irrigation reservoirs is generally above average and with proper regulation, all reservoirs are expected to fill.

Water contained in the soil under the snow pack is generally above average.

Snow pillow data for high years for 1964 and 1965 seasons are included in this report along with the 1966 season to date for the four snow pillows presently in operation.


SNOW COURSES AND
SOIL MOISTURE STATIONS
MONTANA
LEGEND
SNOW SURVEY COURSE
SOIL MOISTURE STATION
AERIAL MARKER
SNOW COURSE & SOIL MOISTURE STATION
SNOW COURSE & AERIAL MARKER
SCALE IN MILES
CANADA
IDAHO
WYOMING
SOUTH DAKOTA
Libby
Heron
Columbia Falls
Kalispell
Polson
Thompson Falls
Plains
St. Regis
Missoula
Ovando
Helena
Hamilton
Darby
Anaconda
Butte
Dillon
Great Falls
Havre
Glasgow
Lewistown
Harlowton
Wilsall
Livingston
Billings
Red Lodge
Miles City
TIBER RES.
GIBSON RES.
CANYON FERRY RES.
FORT PECK RESERVOIR
HUNGRY HORSE RES.
Flathead Lake
Kootenai
Marias
Milk
Teton
Sun
Missouri
Main Stem
Clark Fork
Blackfoot
Judith
Musselshell
Upper Yellowstone
Lower Yellowstone
Big Hole
Beaverhead
Madison
Gallatin
Jefferson
Bitterroot
Big Horn
Tongue
Powder

INDEX to MONTANA SNOW COURSES and SOIL MOISTURE STATIONS

SNOW COURSES

COLUMBIA RIVER BASIN

Drainage Basin & Course Name	Number	Elev.	Sec.	Twp.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
KOOTENAI RIVER								
Baree Creek	15B11	5500	36	26N	31W	1956	3,4,5,5½	2
Baree Trail	15B15	3800	5	25N	30W	1965	3,4,5,5½	2
Brush Creek	14A04	5000	12	30N	26W	1937	3,4,5	1,2
Graves Creek	14A11	4300	1	36N	25W	1965	3,4,5,5½,6	1,2
Red Mountain	15A01	6000	4	36N	29W	1937	3,4,5,5½,6	1,2
Weasel Divide	14A07	5450	20	37N	24W	1937	3,4,5,5½,6	1,2
FLATHEAD RIVER								
Bassoo Peak	14B03	5150	11	24N	25W	1961	3,4,5	1,5
Beaver Lake	13A11	5900	31	28N	11W	1964	3,4,5	1
Big Creek	13B03	6750	7	22N	18W	1941	3,4,5, 6	1,5
Camp Misery	13A17	6400	30	28N	18W	1962	3,4,5	1,2
Desert Mountain	13A02	5600	24	31N	19W	1937	1,2,3,4,5, 6	1,2
Fatty Creek	13B04	5500	8	22N	18W	1962	3,4,5, 6	1,5
Griffin Creek Divide	14A09	5150	11	28N	25W	1960	3,4,5	1,5
Gunsight Lake	13B12	6300	35	26N	14W	1964	3,4,5	1
Hell Roaring Divide	14A03	5770	35	32N	22W	1942	1,2,3,4,5,5½,6	2
Holbrook	13B13	4530	18	21N	13W	1951	1,2,3,4,5	1
Kishenehn	14A06	3890	14	37N	22W	1954	3,4	6
Logan Creek	14A05	4300	34	30N	24W	1937	3,4,5	1,2
Marias Pass	13A05	5250	34	30N	14W	1934	1,2,3,4,5	3
Mineral Creek	13A16	4000	29	35N	17W	1957	3,4,5	6
North Fork Jocko	13B07	6330	3	17N	17W	1941	3,4,5,5½,6	1,5
Spotted Bear Mountain	13B02	7000	23	25N	15W	1948	1,2,3,4,5	1,2
Trinkus Lake	13B01	6100	9	25N	17W	1948	3,4,5	1
Twin Creeks	13B11	3580	24	26N	16W	1951	1,2,3,4,5	1,2
Upper Holland Lake	13B05	7000	28	20N	15W	1948	3,4,5	1
CLARK FORK RIVER								
Black Pine	13C13	7100	26	8N	15W	1959	3,4,5,5½,6	1,2
Copper Creek	12B10	5700	1	15N	9W	1962	3,4,5	1,2
Cotter Mine	12B11	6250	2	15N	9W	1962	3,4,5	1,2
Coyote Hill	13B10	4200	12	18N	16W	1947	1,2,3,4,5	1,2
El Dorado Mine	13C09	7800	23	8N	12W	1949	3,4	1
Fred Burr Pass	13C11	8000	12	6N	13W	1957	3,4,5	1
Gold Creek Lake	13C10	7200	14	8N	12W	1949	3,4	1
Heart Lake Trail	14C10	4800	11	14N	27W	1965	3,4,5	1,2
Hoodoo Creek	15C01	5900	16	14N	27W	1937	3,4,5	1,2
Intergaard	13C04	6450	6	5N	13W	1936	2,3,4,5	4
Lubrecht Forest No. 3	13C21	5450	19	13N	14W	1951	1,2,3,4,5	8
Lubrecht Forest No. 4	13C22	4650	23	13N	15W	1951	1,2,3,4,5	8
Lubrecht Forest No. 6	13C08	4040	11	13N	15W	1951	1,2,3,4,5	8
Red Lion	13C12	7100	22	6N	13W	1958	3,4,5	1
Skalkaho Summit	13C03	7260	30	6N	17W	1937	3,4,5,5½,6	1
Slide Rock Mountain	13C02	7100	35	10N	16W	1937	3,4,5	1
Southern Cross	13C05	6500	8	5N	13W	1936	2,3,4	4
Spring Gulch	13C18	6000	12	14N	19W	1961	1,2,3,4,5	8
Storm Lake	13C07	7780	19	4N	13W	1939	1,2,3,4,5	1
Stuart Mill	13C06	6500	19	5N	13W	1936	2,3,4	4
Stuart Mountain	13C01	7400	6	14N	18W	1936	1,2,3,4,5,5½,6	8
TV Mountain	14B01	6800	33	15N	19W	1956	1,2,3,4,5,5½,6	8
BITTERROOT RIVER								
Ambrose	13C16	6480	28	9N	18W	1960	3,4,5	1
East Fork R. S.	13D01	5400	16	2N	17W	1937	3,4	1
Gibbons Pass	13D02	7100	4	2S	19W	1934	1,2,3,4,5,5½,6	1,3
Lost Horse	14C07	5940	5	4N	23W	1960	3,4,5,5½,6	1
Nez Perce Camp	14D02	5680	19	1S	23W	1937	3,4,5	1
Nez Perce Pass	14D01	6570	25	1S	24W	1937	3,4,5	1
Saddle Mountain	13D22	7940	5	2S	19W	1965	3,4,5,5½,6	1
Twin Lakes	14C08	6510	32	5N	23W	1960	3,4,5,5½,6	1
ST. MARY RIVER BASIN								
Iceberg Lake No. 3	13A03	5600	1	35N	17W	1922	5	3,9
Josephine Lower No. 9	13A14	4900	22	35N	16W	1955	5	3,9
Mount Allen No. 7	13A07	5700	27	35N	16W	1922	5	3,9
Piegan Pass No. 6	13A06	5500	27	35N	16W	1922	5	3,9
Ptarmigan No. 8	13A08	5800	36	36N	17W	1937	5	3,9

MISSOURI RIVER BASIN

Drainage Basin & Course Name	Number	Elev.	Sec.	Twp.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
BEAVERHEAD RIVER								
Bloody Dick	13D10	7600	12	8S	16W	1948	3,4,5	1
Carter Creek	12D04	7400	22	8S	7W	1963	2,3,4	1
Dad Creek Lake	13E22	8400	24	12S	13W	1965	3,4,5	1
Elkhorn Springs	13D15	7800	21	4S	12W	1935	3,4,5	3
Gold Stone	13D09	8100	11	8S	16W	1948	3,4,5	1
Lakeview Canyon	11E04	6930	26	14S	2W	1948	3,4,5	10
Lakeview Ridge	11E03	7400	27	14S	2W	1948	3,4,5	10
Lemhi Pass	13E01	7480	9	10S	15W	1948	3,4	1
Trail Creek	13E02	7090	15	10S	15W	1948	3,4	1
White Pine Ridge	12E01	8850	18	14S	9W	1948	3,4,5	1
MISSOURI RIVER BASIN (continued)								
RUBY RIVER								
Clover Meadow	11D08	8600	28	9S	2W	1963	3,4,5	1
Divide	12E07	7900	14	12S	4W	1963	3,4,5	1
Notch	12E06	8500	18	11S	4W	1963	3,4,5	1
BIG HOLE RIVER								
Abundance Lake	13D20	8800	7	3S	11W	1963	3,4,5	1
Darkhorse Lake	13D19	8600	4	8S	16W	1963	3,4,5	1
Foolhen	13D21	8280	11	1S	13W	1963	3,4,5	1
Jahnke Creek	13D08	7340	25	7S	16W	1948	3,4,5	1
JEFFERSON RIVER								
Berry Meadow	12C07	7300	8	5N	5W	1962	3,4,5	1
Picnic Grounds	12C06	6500	10	5N	6W	1941	2,3,4	4
Pipestone Pass	12D01	7200	10	1N	7W	1938	1,2,3,4,5	1
MADISON RIVER								
Call Road	11D07	8050	21	8S	2W	1962	3,4,5	1
Four Mile	11D12	6900	6	4S	2W	1965	3,4,5	1
Freezeout Lake	11E25	7200	6	12S	1E	1965	3,4,5,5½,6	2
Freezeout Mountain	11E26	8250	26	11S	1W	1965	3,4,5,5½,6	2
Hebgen Dam	11E05	6550	22	11S	3E	1934	1,2,3,4,5	3
Jack Creek	11D05	7500	13	6S	1E	1961	3,4	1
Lake Creek	11E22	6100	27	11S	1E	1965	3,4,5,5½,6	2
Lower Twin	11D11	7900	12	4S	3W	1965	3,4,5	1
Meridian Creek	11E23	7000	31	12S	1E	1965	3,4,5,5½,6	2
North Meadow	11D03	7500	24	3S	3W	1961	3,4,5	1
Potomageton Park	11E21	7150	33	10S	3E	1965	3,4,5	2
Sentinel Creek	11E20	8300	17	10S	3E	1965	3,4,5	2
Teepee Creek	11E24	8000	15	12S	1W	1965	3,4,5,5½,6	2
West Yellowstone	11E07	6700	34	13S	5E	1934	1,2,3,4,5	3
GALLATIN RIVER								
Arch Falls	10D14	7350	3	5S	6E	1963	2,3,4,5,5½,6	1
Bear Basin	11D09	8150	9	6S	3E	1963	3,4,5	1
Bridger Bowl	10D15	7250	25	1N	6E	1965	1,2,3,4,5½,6	1
Devil's Slide	10D04	8100	14	5S	6E	1935	2,3,4,5,5½,6	1
Hood Meadow	10D03	6600	22	4S	6E	1935	2,3,4,5,5½,6	1
Little Park	11D10	7400	22	6S	3E	1963	3,4,5	1
New World	10D01	6700	24	3S	6E	1939	2,3,4	1
Twenty-One Mile	11E06	7150	1	11S	5E	1934	1,2,3,4,5	3
MISSOURI RIVER MAIN STEM								
Boulder Mountain	11C01	7950	1	9N	3E	1963	3,4,5	1
Chessman Reservoir	12C05	6200	2	8N	5W	1936	1,2,3,4,5	3
Deadman Creek	10C09	6450	23	12N	8E	1966	3,4,5,5½,6	1
Elk Peak	10C07	8000	10	8N	8E	1963	3,4,5	1
Grasshopper	10C02	7000	19	9N	8E	1938	3,4,5	1
Kings Hill	10C01	7500	34	13N	8E	1934	3,4,5,5½,6	1,3
Rocky Boy	9A01	5200	15	28N	16E	1941	3,4	7
Steeple Pass	12C01	6600	16	13N	7W	1934	3,4,5	3
Ten Mile Lower	12C02	6600	12	8N	6W	1935	1,2,3,4,5	3
Ten Mile Middle	12C03	6800	13	8N	6W	1934	1,2,3,4,5	3
Ten Mile Upper	12C04	8000	19	8N	5W	1935	1,2,3,4,5	3
SUN-TETON-MARIAS RIVERS								
Badger Pass	13A15	6900	4	27N	11W	1964	3,4,5	1
Cabin Creek	12B06	5200	33	23N	10W	1949	3,4,5	1
Five-Bull	12B09	5700	25	20N	10W	1948	3,4,5	1
Freight Creek	12A01	6000	13	26N	10W	1948	3,4,5	1
Goat Mountain	12B07	7000	20	22N	10W	1934	3,4,5	3
Waldron Creek	12B02	5300	16	25N	9W	1948	3,4,5	1
West Fork	12B01	6000	6	25N	9W	1948	3,4,5	1
Wrong Creek	12B04	5700	32	25N	10W	1949	3,4,5	1
Wrong Ridge	12B03	6800	17	25N	10W	1949	3,4,5	1
JUDITH RIVER								
Crystal Lake	9C01	6100	19	12N	18E	1941	3,4	1
Spur Park	10C06	8000	20	12N	9E	1963	3,4,5,5½,6	1
UPPER YELLOWSTONE RIVER								
Bald Ridge	10C05	7500	11	4N	10E	1961	3,4,5	1
Camp Senia	9D01	7890	2	8S	18E	1937	3,4,5,5½,6	1
Crevice Mountain	10D05	8400	22	9S	9E	1935	3,4	2
Grizzly Peak	9D05	8400	26	7S	19E	1961	1,2,3,4,5	1
Independence	10D06	8000	22	7S	12E	1940	3,4,5	1
Monument Peak	10D12	9000	22	7S	12E	1961	3,4,5	1
Northeast Entrance	10D07	7400	33	9S	14E	1937	1,2,3,4,5	6
Porcupine R. S.	10C03	6500	10	4N	10E	1938	3,4,5	1
Sacajawea	10D10	6550	36	2N	6E	1960	3,4,5	1
South Fork Shields	10C08	8100	13	4N	10E	1965	3,4,5	1
Timberline Creek	9D04	8850	10	8S	18E	1961	3,4,5	1
West Rosebud	9D02	7500	9	7S	16E	1960	3,4	4

SOIL MOISTURE STATIONS

COLUMBIA RIVER BASIN

Drainage Basin & Course Name	Number	Elev.	Sec.	Twp.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
KOOTENAI RIVER								
Baree Trail	15B15M	3800	5	25N	30W	1964	Monthly	2
Murphy Lake R. S.	14A10M	3000	5	34N	25W	1964	Monthly	2
Raven R. S.	15A02M	3050	2	26N	29W	1964	Monthly	2
FLATHEAD RIVER								
Desert Mountain	13A02M	5600	24	31N	19W	1956	Monthly	1
Marias Pass	13A05M	5250	34	30N	14W	1950	Monthly	1
CLARK FORK RIVER								
Georgetown Lake	13C15M	6450	6	5N	13W	1962	Monthly	1
Lubrecht Forest	13C14M	4100	11	13N	15W	1961	Monthly	8
Seeley Lake	13B19M	4030	21	17N	15W	1963	Monthly	2
Skalkaho Summit	13C03M	7260	30	6N	17W	1964	Monthly	1
BITTERROOT RIVER								
Gibbons Pass	13D18M	7100	4	2S	19W	1962	Monthly	1
Lolo Pass	14C05M	5250	11	10N	24W	1963	Monthly	1

MISSOURI RIVER BASIN

Drainage Basin & Course Name	Number	Elev.	Sec.	Twp.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
BEAVERHEAD RIVER								
Lakeview	11E13M	6700	23	14S	2W	1962	Monthly	10
MADISON RIVER								
Red Bluff	11D04M	4800	7	3S	1E	1961	Monthly	7
GALLATIN RIVER								
Bridger Bowl	10D15M	7250	25	1N	6E	1965	Monthly	1
College Site	11D02M	4856	18	2S	5E	1956	Monthly	1
Twenty-One Mile	11E06M	7150	1	11S	5E	1963	Monthly	6
MISSOURI RIVER MAIN STEM								
Kings Hill	10C01M	7420	34	13N	8E	1963	Monthly	1
Steeple Pass	12C08M	6350	16	13N	7W	1963	Monthly	1
YELLOWSTONE RIVER								
Battle Ridge	10D11M	6020	32	2N	7E	1960	Monthly	1
Northeast Entrance	10D07M	7350	33	9S	14E	1962	Monthly	6

LEGEND

1/ Numerals 1,2,3,4,5,5½,6 refer to January 1, February 1, March 1, April 1, May 1, May 15 and June 1.

2/ Numerals refer to Agency that secures the snow survey as follows:

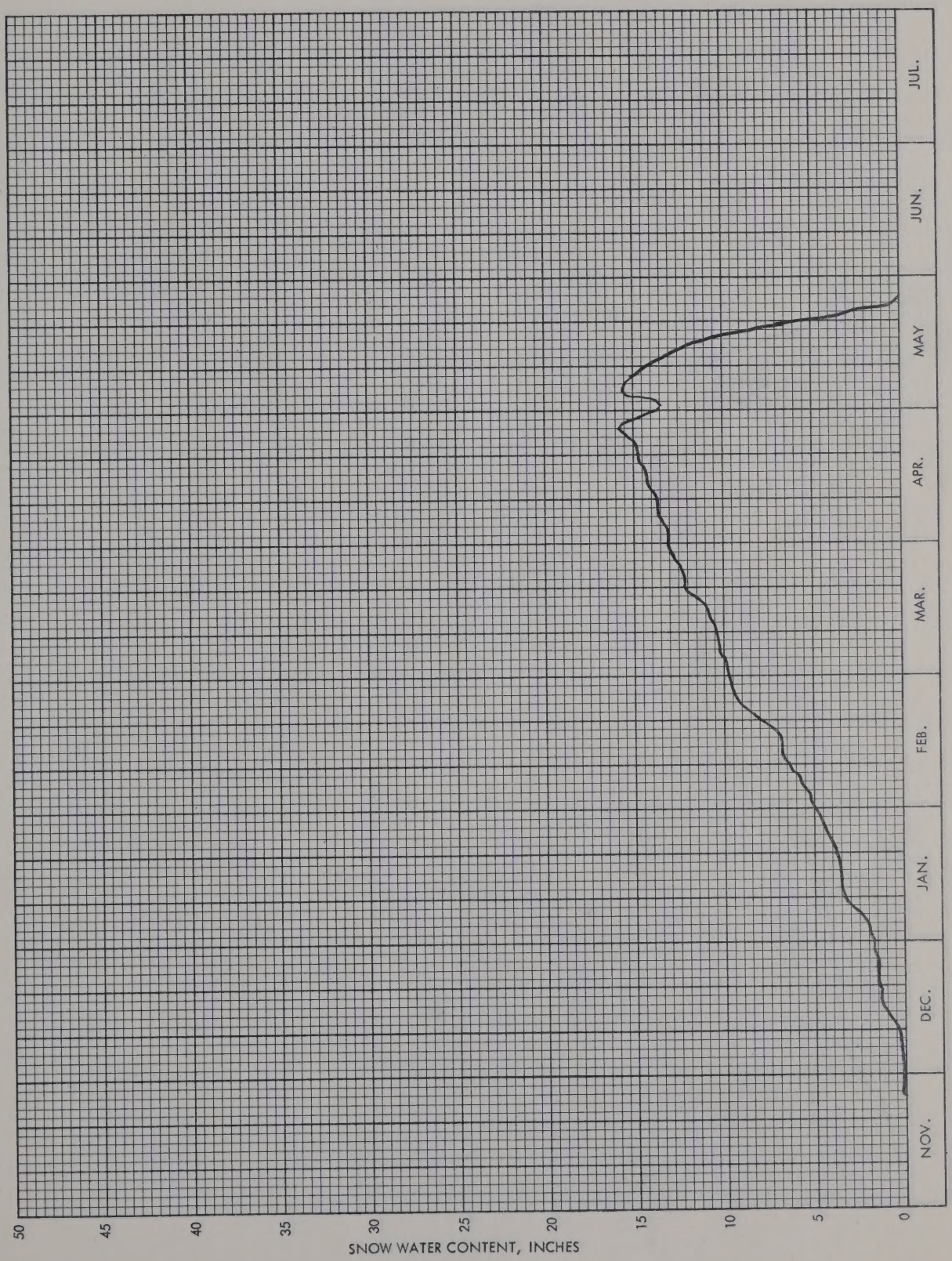
1. U. S. Soil Conservation Service
2. U. S. Forest Service
3. U. S. Geological Survey
4. Montana Power Company
5. U. S. Indian Service
6. U. S. National Park Service
7. MSU Agricultural Experiment Station
8. U. of M. School of Forestry
9. Dominion Water & Power Bureau
10. U. S. Bureau of Sport Fisheries & Wildlife

M - Soil Moisture

LICK CREEK
SNOW PILLOW DATA
AS OF 1964

Sec. 10 T. 4S R. 6E No. 10D13 Drainage: Missouri

Lat. 45-30 Long. 111-58 Elev. 6860 Gallatin



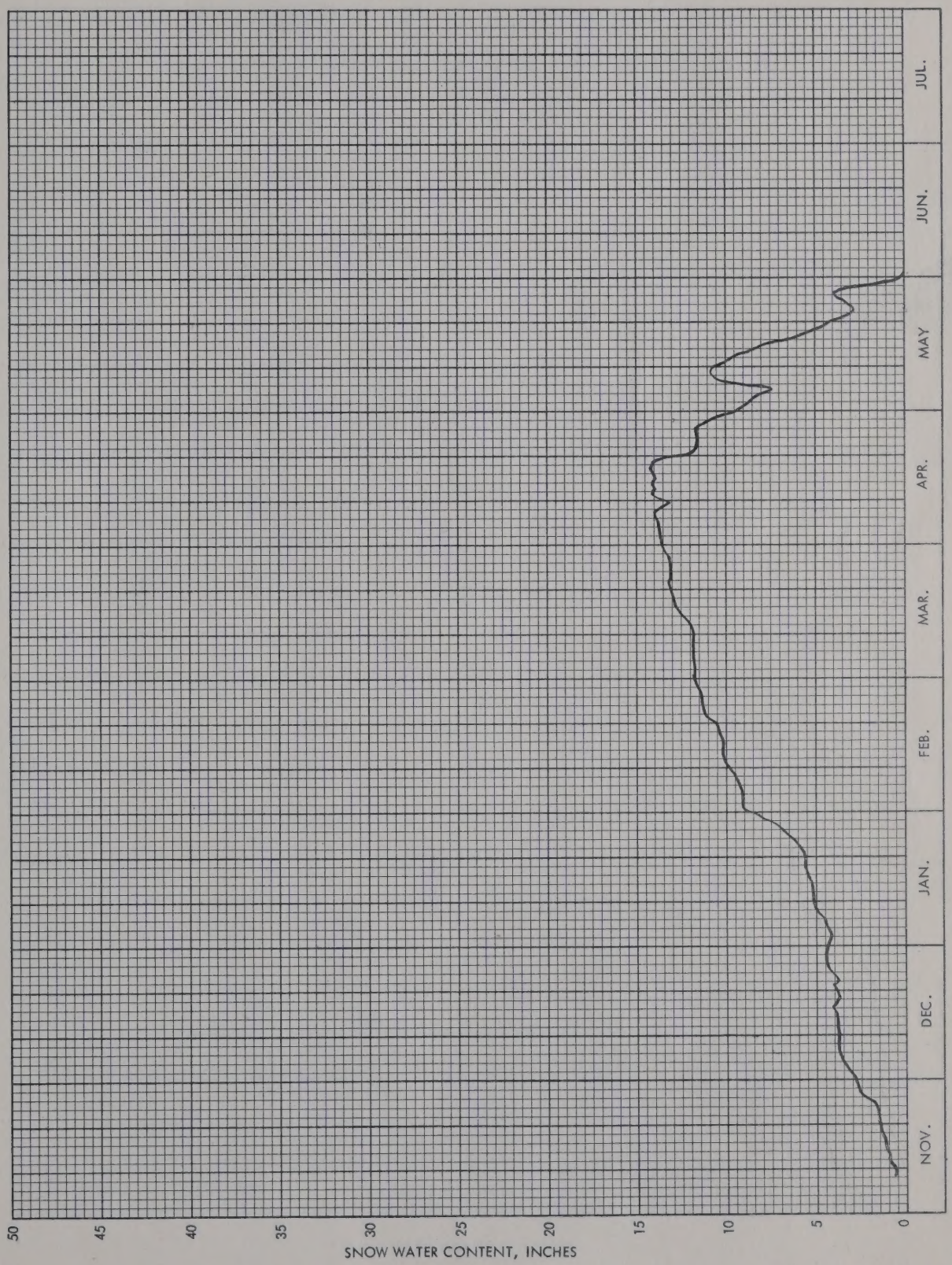
LICK CREEK

SNOW PILLOW DATA

AS OF 1965

Sec. 10 T. 4S R. 6E No. 10D13 Drainage: Missouri

Lat. 45-30 Long. 110-58 Elev. 6860 Gallatin

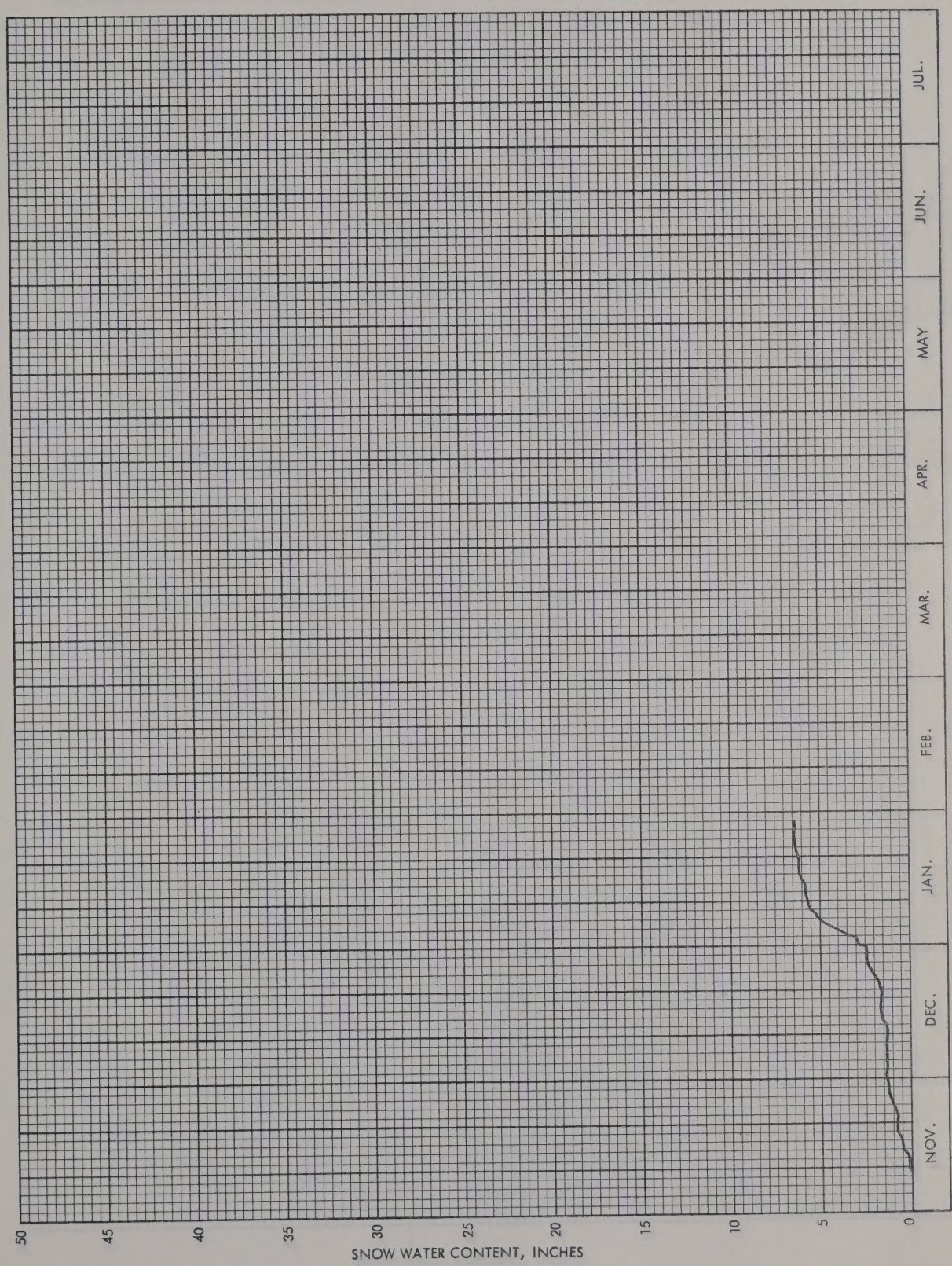


BLACK PINE
SNOW PILLOW DATA

AS OF FEBRUARY 1, 1966

Sec. 26 T. 8N R. 15W No. 13C13 Drainage: Columbia

Lat. 46-25 Long. 113-26 Elev. 7100 Clark Fork



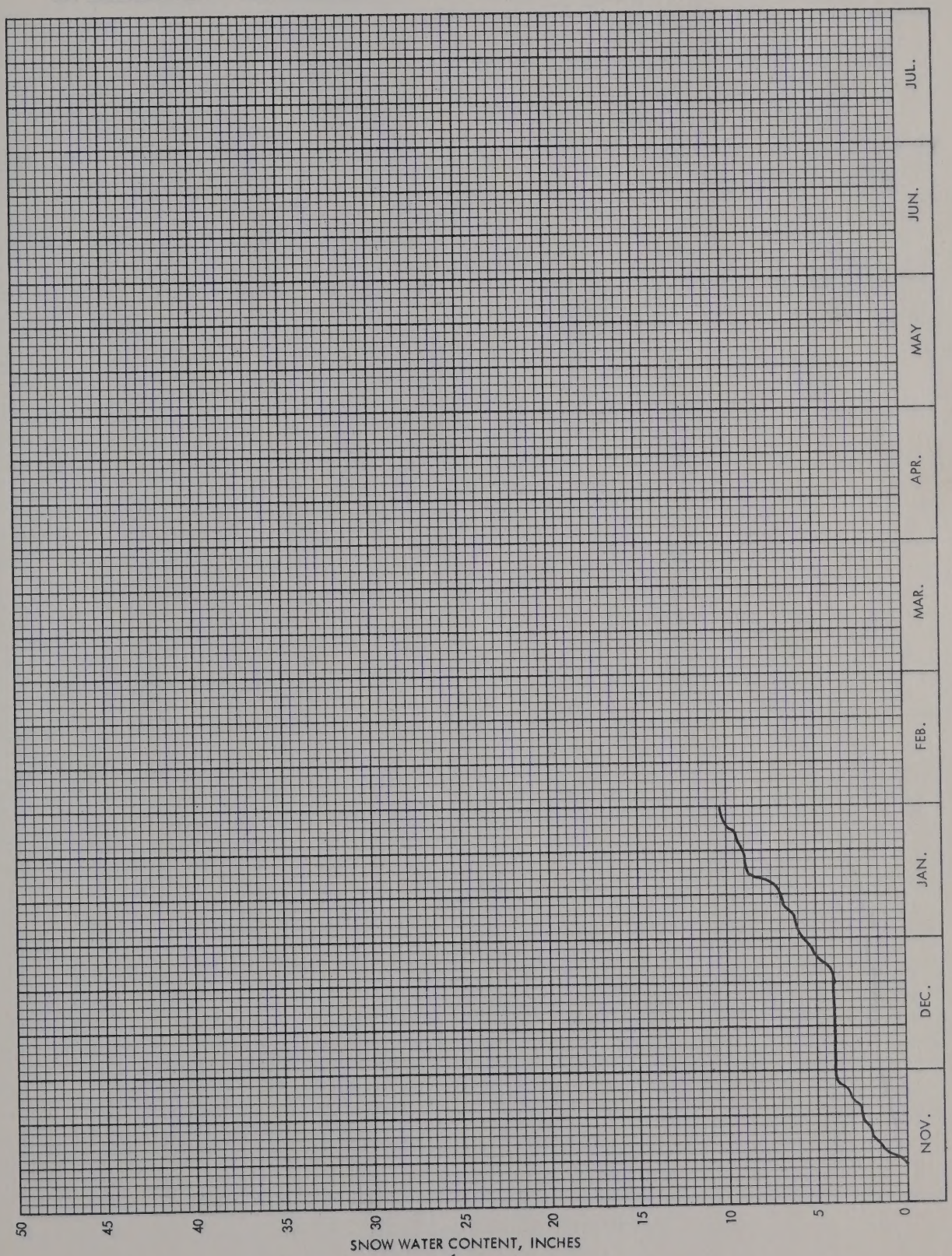
BRIDGER BOWL

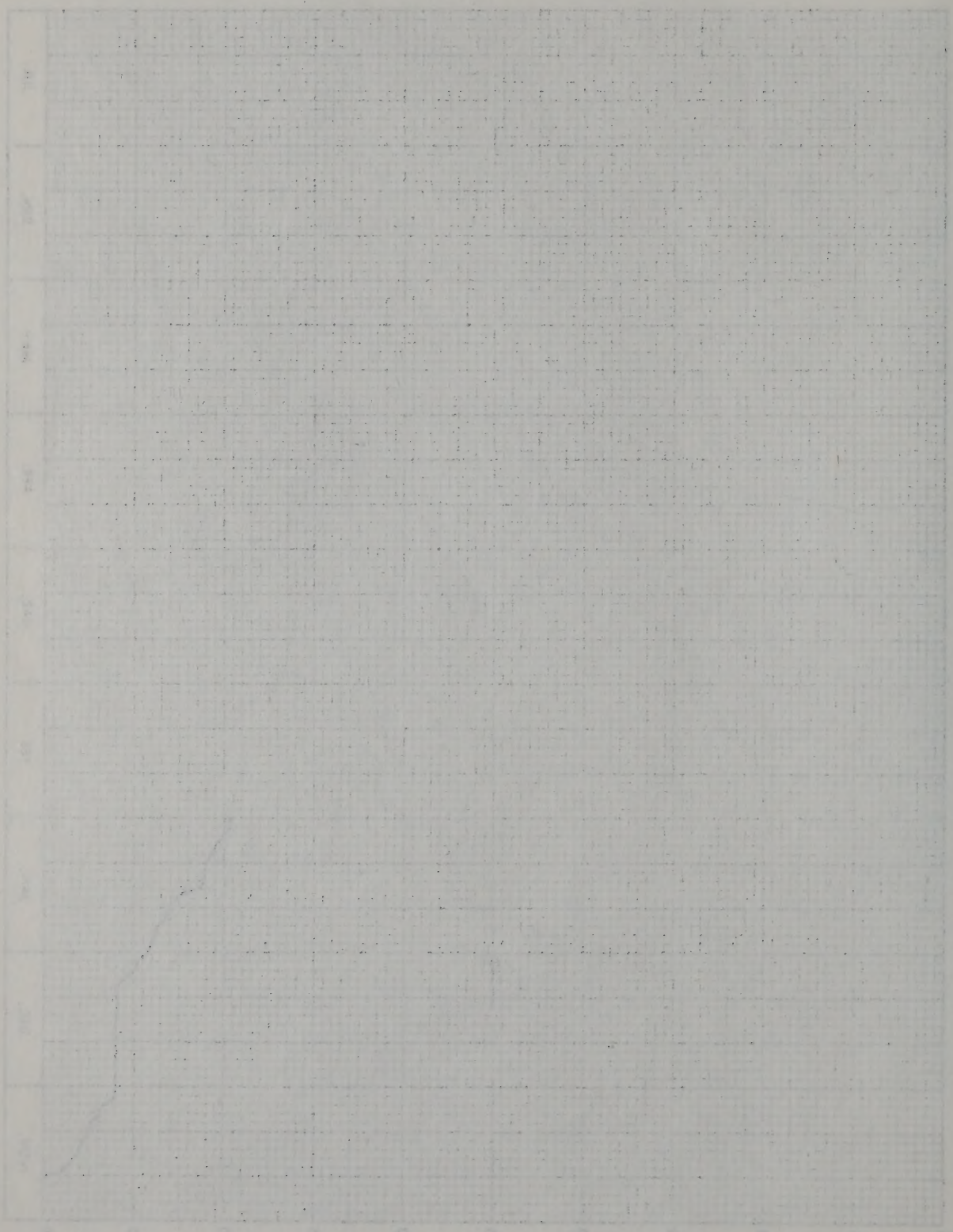
SNOW PILLOW DATA

AS OF FEBRUARY 1, 1966

Sec. 25 T. 1N R. 6E No. 10D15 Drainage: Missouri

Lat. 45-48 Long. 110-55 Elev. 7250 Gallatin



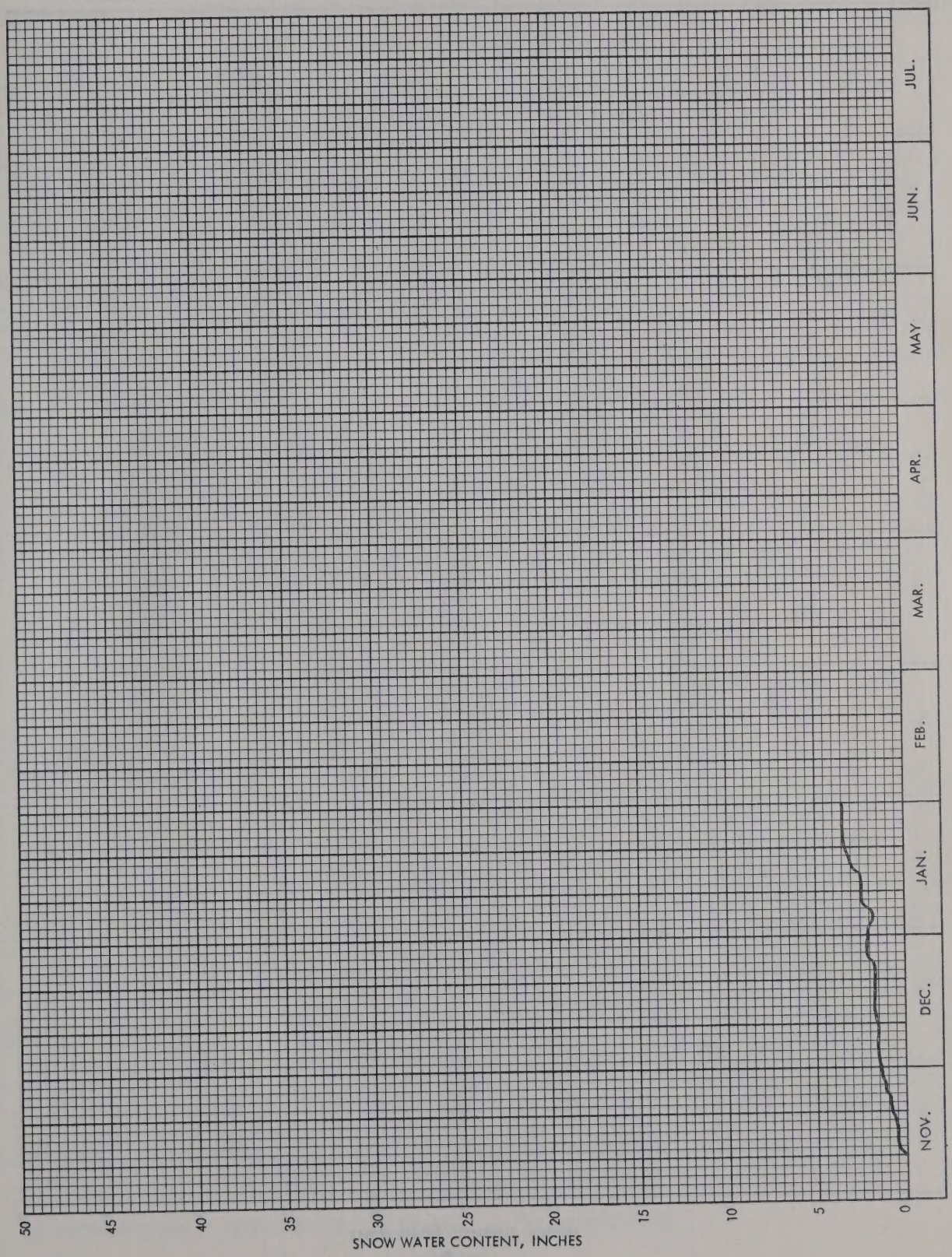


LICK CREEK
SNOW PILLOW DATA

AS OF FEBRUARY 1, 1966

Sec. 10 T. 4S R. 6E No. 10D13 Drainage: Missouri

Lat. 45-30 Long. 110-58 Elev. 6860 Gallatin



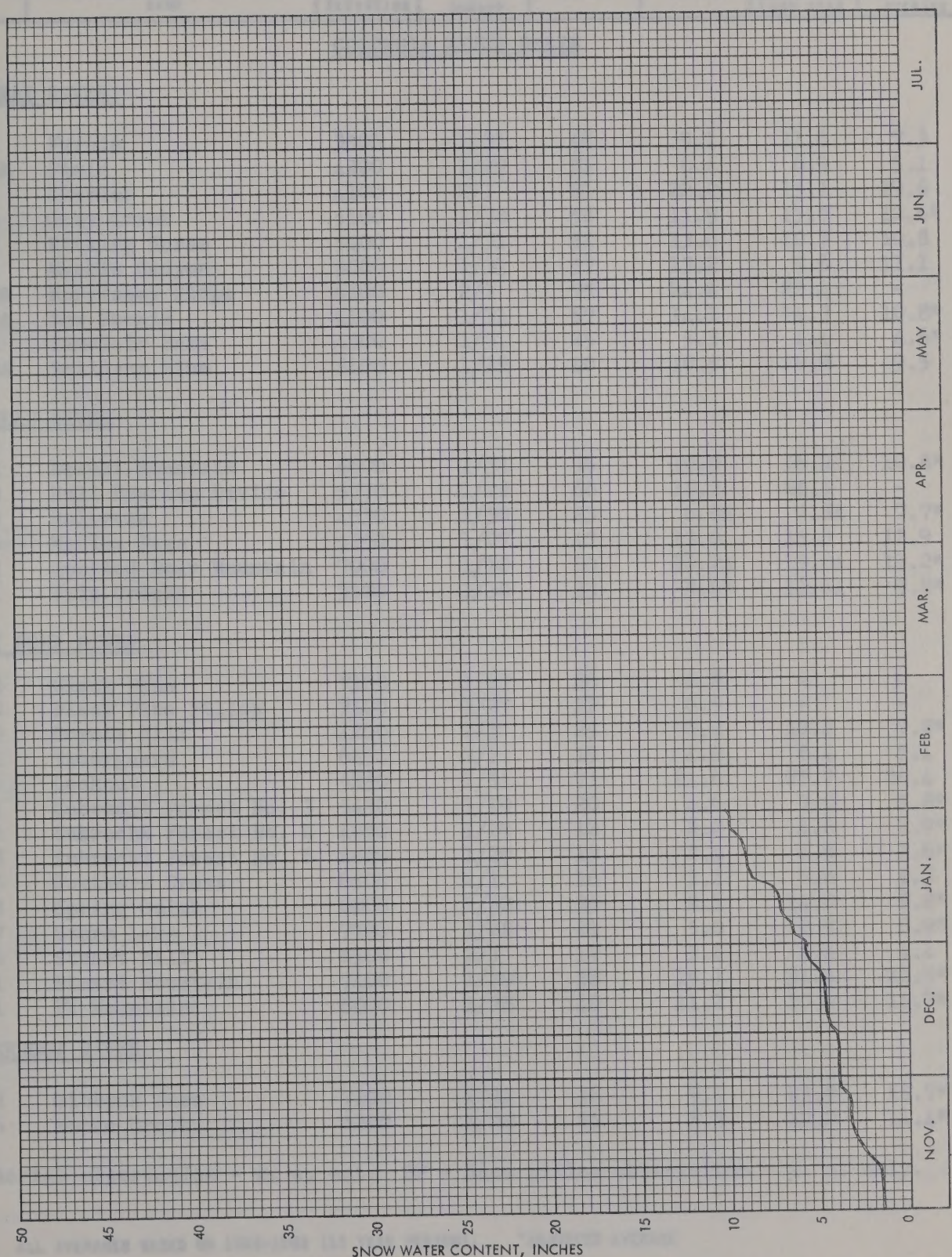
SHOWER FALLS

SNOW PILLOW DATA

AS OF FEBRUARY 1, 1966

Sec. 14 T. 5S R. 6E No. 10D16 Drainage: Missouri

Lat. 45-24 Long. 110-57 Elev. 8100 Gallatin



SNOW SURVEY DATA

AS OF FEBRUARY 1, 1966

(inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
COLUMBIA RIVER BASIN							
KOOTENAI RIVER							
BC 10	Fernie	3500	1/31	42	9.1	11.6	7.3
BC 12A	Field	4200	1/29	31	6.4	6.9	5.1
BC 11	Glacier	4100	2/1	81	22.2	15.1	19.6
BC 43	Gray Creek	5100	1/30	52	11.9	13.7	12.6*
BC 33	Kicking Horse	5400	1/31	54	13.0	10.7	10.8
BC 32	Marble Canyon	5000	1/31	57	13.2	9.6	11.1
BC 10B	Morrissey Ridge	6100	2/1	75	24.4	22.4	-
BC 10A	New Fernie	4100	1/31	57	14.1	14.3	10.8*
BC 8A	Sinclair Pass	4500	1/31	25	5.3	4.4	4.6*
BC 20A	Sullivan Mine	5100	1/28	40	10.5	10.8	9.5
FLATHEAD RIVER							
13A02	Desert Mountain	5600	1/31	36	10.0	16.2	10.8*
14A03	Hell Roaring Divide	5770	1/28	66	18.2	28.5	-
13B13	Holbrook	4530	1/30	23	6.0A	9.8A	7.7*
13A05	Marias Pass	5250	1/27	47	13.0	15.3	12.9
13B02	Spotted Bear Mountain	7000	1/30	36	10.2A	13.0A	11.2*
13B11	Twin Creeks	3580	1/30	33	8.6*	11.6A	9.8*
CLARK FORK RIVER							
13C13	Black Pine	7100	1/27	26	6.8	-	-
13C13	Black Pine Pillow	7100	1/27	SP	6.5	-	-
13B10	Coyote Hill	4200	2/1	25	6.2	10.2	7.8*
13C04	Intergaard	6450	2/1	19	4.0	8.4	5.4
15B02	Lookout	5250	1/31	71	21.6	27.7	26.4
13C21	Lubrecht Forest No. 3	5450	1/29	20	4.6	7.0	5.8*
13C22	Lubrecht Forest No. 4	4650	1/29	12	2.2	4.6	2.9*
13C08	Lubrecht Forest No. 6	4040	1/29	13	2.4	4.8	3.6*
13C05	Southern Cross	6500	2/1	16	3.1	6.6	4.3
13C18	Spring Gulch	6000	1/30	35	8.1	14.0	8.8*
13C07	Storm Lake	7780	1/28	21	5.0	12.9	8.9*
13C06	Stuart Mill	6500	2/1	17	3.4	6.4	4.4
13C01	Stuart Mountain	7400	1/30	58	15.1	31.4	21.9*
14B01	TV Mountain	6800	1/28	40	11.2	15.9	11.7*
BITTERROOT RIVER							
13D02	Gibbons Pass	7100	1/31	36	9.4	23.8	15.7*
13D16	Moose Creek	6200	1/28	26	5.8	17.0	11.4*

A - Aerial observation - w. c. est. SP - Snow pillow observation - w. c. only.

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE

SNOW SURVEY DATA

AS OF FEBRUARY 1, 1966

SNOW COURSE			CURRENT DATA			PAST RECORDS	
No.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT LAST YEAR	AVERAGE
COLUMBIA RIVER BASIN							
KOOTENAY RIVER							
BC 10	Fernie	3500	1/31	42	9.1	12.6	7.3
BC 12A	Field	4200	1/27	31	6.4	6.9	5.1
BC 11	Glacier	4200	2/1	83	22.2	15.1	19.6
BC 43	Gray Creek	5100	1/30	52	11.9	13.7	12.6
BC 33	Kicking Horse	5400	1/31	54	13.0	10.7	10.8
BC 32	Marble Canyon	5000	1/31	57	13.2	9.6	11.1
BC 10M	Morrissey Ridge	6100	2/1	75	24.4	22.4	-
BC 10A	New Fernie	4100	1/31	57	14.1	14.3	10.8
BC 8A	Steadman Pass	4500	1/31	25	5.3	4.4	4.6
BC 20A	Sullivan Mine	5100	1/28	40	10.5	10.2	9.5
FLATHEAD RIVER							
13A02	Desert Mountain	5600	1/31	36	10.0	16.2	10.8
14A05	Hell Roaring Divide	5270	1/24	66	18.2	28.5	-
13B13	Holbrook	4430	1/30	23	6.0A	9.8A	7.7
13A05	Marias Pass	5250	1/27	47	13.0	15.3	12.9
13B02	Spotted Bear Mountain	7000	1/30	36	10.2A	13.0A	11.2
13B11	Twin Creeks	5580	1/20	33	8.6*	11.6A	9.8
CLARK FORK RIVER							
13C13	Black Pine	7100	1/27	26	6.8	-	-
13C13	Black Pine Pillow	7100	1/27	87	6.5	-	-
13B10	Coyote Hill	4200	2/1	25	6.2	10.2	7.8
13C04	Interpard	6430	2/1	19	4.0	8.4	5.4
13B02	Lookout	5250	1/31	71	21.6	27.7	20.4
13C21	Lubrecht Forest No. 3	5430	1/29	20	4.6	7.0	5.2
13C22	Lubrecht Forest No. 4	4650	1/29	12	2.2	4.5	2.8
13C08	Lubrecht Forest No. 6	4040	1/29	13	2.4	4.8	3.6
13C05	Southern Cross	6500	2/1	16	3.1	6.0	4.3
13C15	Spring Gulch	6000	1/30	35	8.1	14.0	5.8
13C07	Storm Lake	7780	1/28	21	5.0	12.9	8.9
13C06	Stuart Mill	6500	2/1	17	3.4	6.4	4.4
13C01	Stuart Mountain	7400	1/30	38	15.1	21.4	21.0
14B01	TV Mountain	6800	1/28	40	11.2	15.9	11.7
BITTERROOT RIVER							
13D02	Gibbons Pass	7100	1/31	36	9.4	23.0	13.7
13D16	Moose Creek	6200	1/28	26	5.8	17.0	11.4

A - Aerial observation - m. c. est. SP - Snow pillow observation - v. c. only.

NOTE: ALL AVERAGES BASED ON 1948-1962 (12 YEAR PERIOD). *ADJUSTED AVERAGE

SNOW SURVEY DATA

AS OF FEBRUARY 1, 1966

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT LAST YEAR	WATER CONTENT AVERAGE
	MISSOURI RIVER BASIN						
BEAVERHEAD RIVER							
12E03	Camp Creek	6800	1/28	24	5.6	13.3	6.5
12D04	Carter Creek	7400	1/31	12	2.2	4.5	-
11E12	Kilgore	6200	1/28	25	5.8	10.6	6.4
JEFFERSON RIVER							
12C06	Picnic Grounds	6500	2/1	11	1.7	3.3	3.3
12D01	Pipestone Pass	7200	1/27	12	2.0	3.4	3.3*
MADISON RIVER							
11E09	Big Springs	6500	1/28	41	10.5	22.2	13.7
11E05	Hebgen Dam	6550	1/31	19	4.1	12.6	8.1
11E10	Island Park	6315	1/28	36	8.4	19.4	10.8
10E02	Norris Basin	7500	1/28	24	5.8	11.5	6.9*
11E08	Valley View	6500	1/28	34	8.4	23.5	9.6
11E07	West Yellowstone	6700	1/31	22	5.8	13.4	7.8
GALLATIN RIVER							
10D14	Arch Falls	7350	1/29	18	4.2	11.0	7.3*
10D15	Bridger Bowl Pillow	7250	1/31	SP	10.3	-	-
10D04	Devil's Slide	8100	1/29	30	7.2	21.8	12.7*
10D03	Hood Meadow	6600	1/29	14	3.0	8.4	5.5*
10D13	Lick Creek Pillow	6860	1/31	SP	3.5	-	-
10D01	New World	6700	1/31	19	4.1	7.7	6.6
10D16	Shower Falls Pillow	8100	1/31	SP	10.3	-	-
11E06	Twenty-One Mile	7150	1/31	37	10.4	23.1	12.1
MISSOURI RIVER (Main Stem)							
12C05	Chessman Reservoir	6200	2/1	8	1.3	3.1	3.1
12C02	Ten Mile Lower	6600	2/1	13	2.3	6.2	4.9
13C03	Ten Mile Middle	6800	1/31	20	4.3	9.8	7.3
12C04	Ten Mile Upper	8000	1/31	23	5.0	13.3	9.1
UPPER YELLOWSTONE RIVER							
10E03	Canyon	7750	1/30	31	7.7	21.7	9.4
10E06	East Entrance	7000	1/28	28	5.7	10.4	7.9*
9D05	Grizzly Peak	8400	1/31	23	6.4	9.8	7.1*
10E04	Lake Camp	7850	1/31	24	4.0	10.9	6.5*
9E01	Lodgepole	8200	2/2	21	4.6	10.0	6.6*
10E01	Lupine Creek	7300	1/30	23	5.7	10.4	7.3
10D07	Northeast Entrance	7400	1/31	17	3.8	10.4	5.8
10E05	Sylvan Pass	7100	1/29	28	7.7	16.0	9.3*
10E07	Thumb Divide	7900	1/27	48	15.4	27.3	14.4*

A - Aerial observation - w. c. est. SP - Snow pillow observation - w. c. only.

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE

SNOW SURVEY DATA

AS OF FEBRUARY 1, 1966

SNOW COURSE			CURRENT DATA			PAST RECORD		
No.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT		
						LAST YEAR	AVERAGE	
MISSOURI RIVER BASIN								
HEADWATERS RIVER								
12E03	Camp Creek	5800	1/28	24	5.5	13.3	6.5	
12D04	Carter Creek	7400	1/31	12	2.2	4.5	-	
11M12	Hilgore	6200	1/28	25	5.8	10.6	6.4	
JEFFERSON RIVER								
12C06	Pionia Grounds	6500	2/1	11	4.7	3.3	3.3	
12D01	Pipestone Pass	7200	1/27	12	2.0	3.4	3.3*	
MADISON RIVER								
11M09	Elk Springs	6500	1/28	42	10.5	22.2	13.7	
11M03	Hebgen Dam	6550	1/31	19	4.1	12.0	8.1	
11M10	Island Park	6315	1/28	36	8.4	19.4	10.8	
10S02	Norris Basin	7500	1/28	21	5.8	11.5	6.9*	
11N08	Valley View	6500	1/28	34	8.4	23.5	9.6	
11N07	West Yellowstone	6700	1/31	22	5.8	13.4	7.8	
GALLATIN RIVER								
10D14	Arch Falls	7350	1/29	18	4.2	11.0	7.3*	
10D15	Bridger Bowl Pillow	7250	1/31	SP	10.3	-	-	
10D04	Devil's Slide	8100	1/29	20	7.2	21.8	12.7*	
10D03	Hood Meadow	6600	1/29	14	3.0	8.4	5.5*	
10D13	Lick Creek Pillow	6860	1/31	SP	3.5	-	-	
10D01	New World	6700	1/31	19	4.1	7.7	6.6	
10D16	Shower Falls Pillow	8100	1/31	SP	10.3	-	-	
11S06	Twenty-One Mile	7150	1/31	37	10.4	23.1	12.1	
MISSOURI RIVER (Main Stem)								
12C05	Canyon Reservoir	6200	2/1	8	1.3	2.1	3.1	
12C02	Ten Mile Lower	6600	2/1	13	2.3	6.2	4.9	
12C03	Ten Mile Middle	6800	1/31	20	4.3	9.8	7.3	
12C04	Ten Mile Upper	8000	1/31	23	5.0	13.3	9.1	
UPPER YELLOWSTONE RIVER								
10E03	Canyon	7750	1/30	31	7.7	21.7	9.4	
10E06	East Entrance	7000	1/28	28	5.7	10.4	7.9*	
9D05	Grizzly Peak	8400	1/31	23	6.4	9.8	7.1*	
10E04	Lake Camp	7550	1/31	24	4.0	10.9	6.5*	
9E01	Lodgepole	8200	2/2	21	4.6	10.0	6.6*	
10E07	Lupine Creek	7300	1/30	23	5.7	10.4	7.3	
10D07	Northeast Entrance	7400	1/31	17	3.5	10.4	5.8	
10E05	Sylvan Pass	7100	1/29	28	7.7	16.0	9.3*	
10E07	Thumb Divide	7900	1/27	48	15.4	27.3	14.4*	

A - Aerial observation - w. c. est. SP - Snow pillow observation - w. c. only.

NOTE: ALL AVERAGES BASED ON 1948-1965 (16 YEAR PERIOD). *ADJUSTED AVERAGE

SOIL MOISTURE DATA

AS OF FEBRUARY 1, 1966

(Inches)

SOIL MOISTURE STATION			SOIL PROFILE		CURRENT DATA		PAST RECORD	
NO.	NAME	ELEVATION	DEPTH	FIELD CAPACITY	DATE OF SURVEY	SOIL MOISTURE	LAST YEAR	**AVERAGE
	COLUMBIA RIVER BASIN							
Koootenai								
15B15M	Baree Trail	3800	48	7.5	-	-	-	-
14A10M	Murphy Lake R.S.	3000	48	22.6	2/1	19.9	19.6	-
15A02M	Raven R.S.	3050	48	23.0	2/2	20.7	22.0	-
Flathead								
13A02M	Desert Mountain	5600	54	8.4	1/31	7.2	7.1	6.8
13A05M	Marias Pass	5250	54	6.5			5.5	5.0
Clark Fork								
13C13M	Black Pine	7100	48	10.0	1/27	4.9	-	-
13C15M	Georgetown Lake	6450	48	9.0	1/27	3.7	2.6	2.7
13B19M	Seeley Lake R.S.	4030	48	11.9	2/2	10.0	7.5	-
13C03M	Skalkaho Summit	7260	48	10.8	-	-	-	-
Bitterroot								
13D18M	Gibbons Pass	7100	48	7.1	1/31	5.0	5.5	5.6
14C05M	Lolo Pass	5250	48	10.6	1/30	6.3	7.7	-
	MISSOURI RIVER BASIN							
Beaverhead								
11E13M	Lakeview	6700	48	15.3	1/31	6.0	11.2	8.3
Madison								
10D04M	Red Bluff	4800	40	4.7			2.3	2.1
Gallatin								
10D15M	Bridger Bowl	7250	48	15.8	2/1	15.1	-	-
11D02M	College Site	4856	54	14.5	1/28	13.5	10.0	8.9
10D13M	Lick Creek	6860	48	18.8	-	-	-	-
11E06M	Twenty-One Mile	7150	48	10.0	1/30	3.1	1.5	-
Missouri Main Stem								
10C01M	Kings Hill	7420	48	11.8	1/25	9.0	7.8	-
12C08M	Stemple Pass	6350	48	5.9	1/31	4.4	4.2	-
Yellowstone								
10D11M	Battle Ridge	6020	48	17.6	2/1	12.7	15.3	12.6
10D07M	Northeast Entrance	7350	48	9.4	1/31	7.7	5.8	7.0

**AVERAGE FOR PERIOD OF RECORD

SOIL MOISTURE DATA

AS OF FEBRUARY 1, 1956

(Inches)

SOIL MOISTURE STATION				SOIL PROFILE		COMPARE DATA		EAST SECTION	
NO.	NAME	ELEVATION	DEPTH	FIELD CAPACITY	DATE OF SURVEY	SOIL MOISTURE PERIOD	LAST YEAR	**AVERAGE

COLUMBIA RIVER BASIN

Kootenai

15B15M	Bates Trail	3800	48	7.5	-	-	-	-
14A10M	Murphy Lake R.S.	3900	48	22.6	2/1	19.9	19.6	-
15A02M	Raven R.S.	3950	48	23.0	2/2	20.7	22.0	-

Flathead

13A02M	Desert Mountain	5600	54	8.4	1/31	7.2	7.1	6.8
13A05M	Marias Pass	5250	54	6.5			5.5	5.0

Clark Fork

13C13M	Black Pine	7100	48	10.0	1/27	4.9	-	-
13C15M	Georgetown Lake	6450	48	9.0	1/27	3.7	2.6	2.7
13B19M	Seeley Lake R.S.	4070	48	11.9	2/2	10.0	7.5	-
13C03M	Skalkaho Summit	7450	48	10.8	-	-	-	-

Bitterroot

13D18M	Gibbons Pass	7100	48	7.1	1/31	5.0	5.5	5.6
14B05M	Lolo Pass	5250	48	10.6	1/30	6.3	7.7	-

MISSOURI RIVER BASIN

Beaverhead

11E13M	Lakeview	6700	48	15.3	1/31	6.0	11.2	8.3

Madison

10D04M	Red Bluff	4800	40	4.7			2.3	2.1

Gallatin

10D15M	Bridger Bowl	7250	48	15.8	2/1	15.1	-	-
11D02M	College Site	4850	54	14.5	1/28	13.5	10.0	8.9
10D13M	Lick Creek	6860	48	18.8	-	-	-	-
11E06M	Twenty-One Mile	7150	48	10.0	1/30	3.1	1.5	-

Missouri Main Stem

10C01M	Sluice Hill	7420	48	11.8	1/25	9.0	7.8	-
12C08M	Stemple Pass	6450	48	5.9	1/31	4.4	4.2	-

Yellowstone

10D11M	Battle Ridge	6020	48	17.6	2/1	12.7	15.3	12.6
10D07M	Northeast Entrance	7350	48	9.4	1/31	7.7	5.8	7.0

**AVERAGE FOR PERIOD OF RECORD

RESERVOIR STORAGE DATA

AS OF JANUARY 31, 1966

(1000 Acre Feet)

BASIN	RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVERAGE
COLUMBIA RIVER BASIN					
Flathead	Hungry Horse	3,428.0	2,381.0	2,811.0	2,693.4**
	Flathead Lake	1,791.0	1,418.0	1,384.0	1,042.9
	Camas (Sum of 4)	45.2	27.3	18.8	30.4
	Mission Valley (Sum of 8)	100.3	57.2	36.5	31.9
Clark Fork	Georgetown Lake	31.0	28.7	29.6	24.5
	Noxon Rapids	334.6	324.5	331.0	-
Bitterroot	Como	34.9	13.1	12.0	10.8
	Painted Rocks	31.7	-		14.0**
MISSOURI RIVER BASIN					
Beaverhead	Clark Canyon	328.9	151.2	66.3	-
	Lima	84.0	45.1	-	26.0
Ruby	Ruby	38.8		-	18.4**
Madison	Hebgen Lake	377.5	222.3	220.8	180.4
	Ennis Lake	41.0	39.9	37.1	36.8
Gallatin	Middle Creek	8.0	1.4	3.7	3.3**
Missouri	Canyon Ferry	2,043.0	1,568.0	1,831.0	1,553.9**
	Hauser & Helena	61.9	60.7	59.6	51.6
	Lake Helena	10.4	10.0	9.6	7.2
	Holter Lake	81.9	81.0	63.5	59.6
	Smith River	10.7	7.9	8.5	5.2**
	Ackley Lake	5.8		-	3.6
	Durand	7.0	5.9	5.5	3.9**
	Martinsdale	23.1	12.1	7.6	8.4**
	Deadman's Basin	72.2	66.2	43.0	39.5**
	Fort Peck	19,410.0	17,000.0	15,290.0	10,575.1
Sun	Gibson	105.0	55.5	46.2	55.7
	Willow Creek	32.3	23.8	15.6	19.2
	Pishkun	32.0	18.8	17.4	18.7
Marias	Lower Two Medicine			-	0.0
	Four Horns	19.2	12.3	-	10.4
	Swift			-	19.9
	Lake Frances	112.0	94.2	-	91.7
	Tiber	1,347.0	672.3	678.3	628.0**
Milk	Fresno	127.2	85.1	64.4	59.4
	Nelson	66.8	51.0	36.7	36.7
	Lake Sherburne	66.1	11.3	-	18.4
Yellowstone	Mystic Lake	20.8	12.8	11.8	10.6
	Tongue River	68.0		-	11.2
	Cooney	27.5	17.3	14.5	10.8**
Big Horn	Boysen	757.8	345.9	326.5	417.4
	Buffalo Bill	421.3	283.9	174.4	216.6
	Bull Lake	152.0	106.5	85.6	68.4
	Yellowtail	1,409.0	146.2	-	-

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). **AVERAGE FOR PERIOD OF RECORD

RESERVOIR STORAGE DATA

AS OF JANUARY 31, 1956

(1000 acre feet)

BASIN	RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVERAGE
COLUMBIA RIVER BASIN					
Flathead	Hungry Horse	3,428.0	2,381.0	2,811.0	2,693.4**
	Flathead Lake	1,791.0	1,418.0	1,384.0	1,042.9
	Ceeee (Sum of 4)	45.2	27.3	18.8	30.4
	Mission Valley (Sum of 8)	100.3	57.2	36.5	31.9
Clark Fork	Georgetown Lake	31.0	28.7	29.6	24.3
	Noxon Rapids	334.6	324.5	331.0	-
Bitterroot	Como	34.9	13.1	12.0	10.8
	Painted Rocks	31.7		-	14.0**
MISSOURI RIVER BASIN					
Beaverhead	Clark Canyon	329.9	131.2	66.3	-
	Lima	84.0	45.1	-	26.0
Ruby	Ruby	38.8		-	18.4**
Madison	Hebgen Lake	377.5	222.3	220.8	180.4
	Ennis Lake	41.0	39.9	37.1	36.8
Gallatin	Middle Creek	8.0	1.4	3.7	3.2**
Missouri	Canyon Ferry	2,042.0	1,568.0	1,831.0	1,593.9**
	Hauser & Helena	61.9	60.7	59.6	51.6
	Lake Helena	10.4	10.0	9.6	7.2
	Holter Lake	81.9	83.0	63.5	39.6
	Smith River	10.7	7.9	8.5	5.2**
	Ackley Lake	5.8		-	3.6
	Durand	7.0	5.9	5.5	3.9**
	Martinsdale	23.1	12.1	7.6	8.4**
	Deadman's Basin	72.2	66.2	43.0	39.5**
	Fort Peck	19,410.0	17,000.0	15,290.0	10,375.1
Sun	Gibson	109.0	55.5	46.2	55.7
	Willow Creek	32.3	23.8	15.6	19.2
	Pishkun	32.0	18.8	17.4	16.7
Marias	Lower Two Medicine			-	0.0
	Four Horns	19.2	12.3	-	10.4
	Nelson			-	19.9
	Lake Frances	112.0	94.2	-	91.7
	Tiber	1,347.0	672.3	678.3	628.0**
Milk	Fresno	127.2	85.1	64.4	59.4
	Nelson	66.8	51.0	36.7	36.7
	Lake Sherburne	66.1	11.7	-	18.4
Yellowstone	Myrtle Lake	20.8	12.6	11.8	10.6
	Tongue River	68.0		-	11.2
	Cooney	21.5	17.3	14.5	10.8**
Big Horn	Boysen	747.8	345.9	326.5	417.4
	Buffalo Bill	421.3	283.9	174.4	216.6
	Bull Lake	152.0	105.5	85.6	68.4
	Yellowtail	1,409.0	148.2	-	-

NOTE: ALL AVERAGES BASED ON 1948-1952 (15 YEAR PERIOD). **AVERAGE FOR PERIOD OF RECORD

Agencies Cooperating in Collecting Data Contained in this Bulletin

U. S. Forest Service
Region 1, Missoula, Montana

U. S. Geological Survey
Helena, Montana

U. S. Army Corps of Engineers
Portland, Oregon
Seattle, Washington
Omaha, Nebraska

U. S. Indian Irrigation Service
St. Ignatius, Montana

U. S. Weather Bureau
Helena, Montana

U. S. Bureau of Sports Fisheries and Wildlife
Red Rock Lakes Refuge
Monida, Montana

U. S. Bureau of Reclamation
Billings, Montana
Boise, Idaho

U. S. Soil Conservation Service
Montana, Wyoming, Idaho

Soil and Water Conservation Districts
Montana Counties

U. S. Bonneville Power Administration
Portland, Oregon

U. S. National Park Service
Yellowstone National Park
Glacier National Park

Montana Power Company
Butte, Montana

State Water Conservation Board
Helena, Montana

North Montana Branch Station
Agricultural Experiment Station
Havre, Montana

Montana State University
Agricultural Experiment Station
Bozeman, Montana

University of Montana
School of Forestry
Missoula, Montana

Johnson Flying Service, Inc.
Missoula, Montana

Water Rights Branch, Dept. of Lands and Forests
Victoria, British Columbia

Department of Northern Affairs and National Resources
Calgary, Alberta

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